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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/496,983	02/02/2000	Mitsunobu Ono	P/16-253	6940

7590 06/30/2003

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EXAMINER
AN, SHAWN S

ART UNIT	PAPER NUMBER
2613	11

DATE MAILED: 06/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/496,983	Mitsunobu Ono et al.
Examiner	**Art Unit**
Shawn An	2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 21, 2003* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-13* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). *10*
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Remarks/Argument

1. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3 and 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (5,627,583) in view of Yabe et al (4,845,555).

Regarding claims 1 and 5, Nakamura et al discloses an endoscope apparatus, comprising:

a first drive signal generator (CCD driver) for generating a drive signal for driving an imaging device (Fig. 1(a), 11) removably connected to an endoscope (Fig. 8, 82);

a video signal extracting portion (CDS circuit) for obtaining a first video signal included in an imaging signal obtained in the imaging device (Fig. 8, 84);

a second drive signal generator (SSG) for generating a second drive signal for controlling a timing when the video extracting portion obtains the first video signal (Fig. 8, 77);

a first processor (video processor) for storing at least part of a circuit for obtaining a second video signal that can be displayed on a monitor (Fig. 8, 71 FPGA(1)); and

a delay circuit (91) for delaying at least part of signals among signals after video processing as specified.

Nakamura's delay circuit is not stored in the first processor and included in the first and the second drive signals.

However, Yabe et al teaches delay circuits (Fig. 1, 18, Fig. 10, 34) which is stored in an endoscope control device (2) for delaying at least part of signals among signals included in a first drive signals (14) and a second drive signals (13).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing an endoscope apparatus as taught by Nakamura et al to incorporate the delay circuit as taught by Yabe et al such that the delay circuit is stored in the first processor of Nakamura's, for delaying at least part of signals among signals included in the first drive signals and the second drive signals in order to correct signal line delay and ultimately reducing many additional components associated with time delaying compensation.

Regarding claim 2, DSP is an electronic component that is well known in the art.

Regarding claim 3, the Examiner takes official notice that a delay circuit varying in its delay time, such as in a remote/manual/set controlled delay, is well known in the art.

Regarding claims 6 and 7, the Examiner takes official notice that setting a timer or an user manually specifying delay time on a conventional switches is well known in the art. Therefore, it is considered an obvious variation to specify delay time or to set information which the delay time can be derived, so that the second processor are able to set the delay time depending on the condition of the switch for correction of the line delay.

Regarding claims 8 and 12, Yabe et al teaches delay time being derived from information indicating length of an insert portion of the endoscope (col. 8, lines 51-55).

Regarding claims 9 and 13, Nakamura discloses a control CPU (Fig. 6, 56) for identifying the type of endoscopes. Therefore, it would have been obvious to combine Nakamura's teaching with Yabe et al's delay circuit so that the delay time can be derived

including identification information as an effective way to measure precise delay time in order to correct line delay signal.

Regarding claims 10 and 11, an information acknowledgment portion, such as a typical (auto) confirmation signal, are considered an obvious feature, so that the second processor sets the delay time depending on information acknowledged from the information acknowledgment portion.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et and Yabe et al as applied to claim 3 above, and further in view of Pasqualini (6,397,374 B1).

Regarding claim 4, the combination of Nakamura et and Yabe et al fails to disclose the delay circuit comprising a multistage buffer circuit connected in series, and a circuit for selecting the number of stages of the buffer circuit.

However, Pasqualini teaches conventionally well known delay circuit comprising a multistage buffer circuit connected in series (Fig. 6), and a circuit for selecting the number of stages of the buffer circuit (col. 8, lines 52-67) in order to vary the delay timing.

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing an endoscope apparatus as taught by Nakamura et al to incorporate the teaching of the delay circuit comprising a multistage buffer circuit connected in series, and the circuit for selecting the number of stages of the buffer circuit as taught by Pasqualini et al as an effective way to vary the delay time in order to correct line delay signal with accuracy.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Watanabe et al (5,585,840), Endoscope in which image pickup means and signal control means are connected to each other by signal transmitting means.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn An whose telephone number (703) 305-0099 and schedule are Tuesday-Friday.

SHAWN S. AN
PATENT EXAMINER

SSA

June 25, 2003